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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. 040849/0177

In re patent application of
Yu Wang et al.

Serial No. 09/682,519

Group Art Unit: 2832

Filed: September 13, 2001

Examiner: L. DONOVAN

For: HIGH FIELD OPEN MRI MAGNET ISOLATION SYSTEM AND METHOD

REPLY BRIEF

Commissioner for Patents
Washington, D.C. 20231

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Sir:

This Reply Brief is being filed in reply to the Examiner's Answer mailed on January 27, 2003, and is directed to new points of argument raised in the Examiner's Answer.

I. Paskaris Teaches Away From a Vibration Isolation System

Page 6, paragraph [11] of the Examiner's Answer states that:

Applicant has not claimed that the vibration system isolates the MRI from external vibrations. Applicant merely claims that there is a vibration isolation system. **Applicant's claims have not precluded that the vibration reduction system may reduce the vibration caused by the MRI system to its support structure.** Applicant has not claimed the MRI being isolated from its environment. [Emphasis in original].

Appellants respectfully disagree with the Examiner's claim interpretation. According to a recent decision from the Court of Appeals for the Federal Circuit in Boehringer Ingelheim

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Vetmedica, Inc. v. Schering-Plough Corp., ___ F3d ___ (02-1026, -1027, Fed. Cir. Feb. 21, 2003):

The first step in claim construction is to determine the ordinary and customary meaning, if any, that would be attributed to the term by those skilled in the art. Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001). Dictionary definitions frequently are useful in this process, Tex. Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03, 64 USPQ2d 1812, 1818-19 (Fed. Cir. 2002) ...[.]

Claim 1 recites a "vibration isolation system" which is adapted to support the MRI magnet system. The term "isolate" or "isolation" is defined in a dictionary as "to render free of external influence." WEBSTER'S II NEW COLLEGE DICTIONARY 588 (1995) (attached to the Response filed May 6, 2002). Thus, the ordinary and customary meaning of the term "vibration isolation system" as defined in a dictionary is a system which renders the MRI magnet system free of external vibrational influence (i.e., a system which renders the MRI magnet system free of external influence of the environmental vibrations). Therefore, Appellants submit that claim 1 does claim the MRI being isolated from its environment and from external vibration.

In contrast, Laskaris rigidly couples the MRI to the floor, thus directly connecting the MRI magnet to the environment. As noted on page 4, lines 11 and 12 of the Examiner's Answer, "Laskaris et al. discloses the instant claimed invention except for the support apparatus providing vibration isolation and the specifics of the isolation system." Laskaris' system is a rigid vibration suppression system and not a vibration isolation system. The claimed invention is distinguished from Laskaris as it isolates vibration from the MRI, rather than fixes the MRI to the floor.

Appellants submit that Laskaris teaches away from the claimed invention because Laskaris teaches to rigidly fix a MRI system to the floor (i.e., to the environment), rather than to provide a vibration isolation system to isolate the MRI system from the environment. A prior art reference cannot be used in a § 103(a) rejection where the prior art reference teaches away from the claimed invention. MPEP § 2145 (X)D.

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II. There is No Motivation to Combine Laskaris and Kim

Page 7, lines 7-8 of the Examiner's Answer states that "Kim discloses a design to reduce vibration caused by the compressor, or piece of heavy, vibration prone equipment (such as any MRI assembly)." (Emphasis added). Appellants respectfully disagree with the Examiner's conclusion that one of ordinary skill in the art would be motivated to apply Kim's design to an MRI assembly.

Laskaris is concerned with the reduction of vibration of the MRI system itself. In contrast, Kim is concerned with reduction of the vibration caused by a compressor and transmitted to the environment. Thus, one of ordinary skill in the art would not be motivated to use the design of Kim, which is adapted to reduce the amount of vibration transmitted from a machine to the environment, in an MRI system of Laskaris, where the concern is the vibration of the MRI system itself.

III. Kim is Non-Analogous Art

Page 7, paragraph [3] of the Examiner's Answer asserts that Kim is analogous art because both "Laskaris and Kim are concerned with reducing vibration from a heavy piece of equipment." (Emphasis added). Appellants respectfully disagree.

First, only Kim is concerned with reducing vibration from a heavy piece of equipment. Laskaris is concerned with reducing the vibration of the heavy piece of machinery, but not with reducing vibration from a heavy piece of equipment.

Second, according to MPEP § 2145(IX), a prior art reference is non-analogous art if the prior art reference is not in the field of the applicants' endeavor and if it is not pertinent to the problem with which the applicants are concerned. Thus, to show that Kim is analogous art, the Examiner has to show that Kim must be reasonably pertinent to the particular problem with which the applicants (i.e., the claimed invention and not necessarily Laskaris) are concerned. The applicants (i.e., the claimed invention) are concerned with isolating a machine (MRI) from the environment. Kim is concerned with isolating the

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environment from the machine. Thus, Kim is non analogous art because it is concerned with an opposite problem from that of the claimed invention.

IV. Dependent Claims Are Separately Patentable

A. Claims 2-4, 12-13, 15-17 and 22

The Examiner's Answer relies on a third reference, Ohsaki, to reject claims 2-4, 12-13, 15-17 and 22 under § 103(a) and cites a form paragraph that generally states that a conclusion of obviousness is proper if it is not based on knowledge gleaned only from the applicant's disclosure (pages 7-8 of the Examiner's Answer). Appellants respectfully submit that the conclusion of obviousness of claims 2-4, 12-13, 15-17 and 22 reached by the Examiner could have only been based on hindsight reconstruction gleaned from the Appellant's disclosure because the prior art references used in the rejection provide no motivation to arrive at the claimed invention.

Page 7, paragraph 6 of Examiner's Answer states that based on the disclosure in column 5, lines 1-12 of Ohsaki it would be have been obvious to substitute the "isolator design of Ohsaki for the isolators of Laskaris et al., as modified, for the purpose of accommodating variations in the operating environment." However, column 5, lines 1-12 of Ohsaki does not teach that the use of pneumatic isolators would "accommodate variations in the operating environment" any better than the isolation device of Kim. Column 5, lines 1-12 of Ohsaki states that the pneumatic isolators could also be used as a vertically moving mechanism. This is a useful feature for moving the movable X-Y stage of the exposure apparatus of Ohsaki to allow it to move in three rather than two dimensions. However, there is no teaching or suggestion in Ohsaki that this would be a useful feature for the compressor of Kim or the MRI of Laskaris, which are stationary devices. Thus, there is no motivation to replace the compressor isolation device of Kim with the pneumatic isolators of Ohsaki and then to insert these pneumatic isolators into the MRI system of Laskaris.

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B. Claims 5-6 and 18

Claims 5-6 and 18 recite that the MRI system further comprises a balance mass. The Examiner's Answer relies on another third reference, Braun, to reject claims 5-6 and 18 under § 103(a). Page 8, paragraphs 2 and 3 of the Examiner's Answer states:

Regarding claims 5-6 and 18, Braun provides no motivation for providing a vibration isolation system.

The vibration isolation system, as claimed, is taught by the combination of Laskaris and Kim.

Appellants respectfully submit that they were not making an argument in the Appeal Brief that Braun was relied on for the teaching of the vibration isolation system. As pointed out on pages 5 and 6 of the Examiner's Answer, Braun was relied on only to supply a teaching of a balance weight on an isolator, which is missing from Laskaris and Kim.

On page 8 of the Appeal Brief, Appellants point out that claims 5-6 and 18 recite a balance mass and that Laskaris and Kim do not teach or suggest a balance mass. Appellants respectfully submit that even if there was motivation to combine Laskaris and Kim as asserted by the Examiner, there is no motivation to import a balance mass from a system of Braun into the system of Laskaris, as modified by Kim.

Appellants respectfully submit that the conclusion of obviousness of claims 5-6 and 18 was also based on an improper hindsight reconstruction. Braun is directed to a vibration isolation system that is used in engines, pumps and helicopters (col. 1, lines 14-20). Laskaris teaches an MRI system. Kim teaches a compressor. Applicants submit that the combination of Laskaris, Kim and Braun is also based on an improper hindsight reconstruction gained solely from the Appellants' disclosure because Braun provides no motivation for providing a balance mass into an MRI system, such as the MRI system of Laskaris. Thus, there is no motivation to combine Braun with Laskaris and Kim. One of ordinary skill in the art would not be motivated to combine these three unrelated references from different fields of endeavor without relying on the knowledge gained from the applicants' disclosure. See MPEP 2145(X)A.

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V. Conclusion

Accordingly, Appellants respectfully solicit the Honorable Board of Patent Appeals and Interferences to reverse the rejection of the pending claims and pass this application on to allowance.

Respectfully submitted,

Date

2/27/03
FOLEY & LARDNER
Customer Number: 22428



22428

PATENT TRADEMARK OFFICE

Telephone: (202) 672-5300

Facsimile: (202) 672-5399

Leon Radomsky
Reg. No. 43,445

This Appeal Brief is being filed in duplicate together with a check in the amount of \$420 (large entry) covering the appeal fee. If this fee is deemed to be insufficient, authorization is hereby given to charge any deficiency (or credit any balance) to the undersigned deposit account 19-07271.